

CLAIMS

1. Backflow preventer (1), which can be inserted into a gas or liquid line (2),
comprising a closing body (3) embodied as a hollow body open on a drainage
5 side, which limits a passage channel (5) between the closing body and a central
closing body counterpart (4), the closing body (3) being displaceable by a flow
medium flowing through the passage channel (5) in a flow direction (Pf 1) from a
closed position, contacting the closing body counterpart (4) in a sealing manner
into an open position against a restoring force of an elasticity and/or a stability of
10 the closing body, characterized in that the closing body (3), in an unstressed
closed position, initially contacts only a partial or edge region (6) of the closing
body counterpart (4) with a partial region embodied as a sealing lip (12) of the
closing body and can additionally be pressed against the closing body counterpart
(4) with a partial region of a longitudinal extension thereof under a pressure of the
15 fluid flowing against the flow direction (Pf 1), opening a downstream buffer
volume for back flowing fluid.
2. A backflow preventer according to claim 1, characterized in that a free edge
region of the sealing lip (12), which contacts the closing body counterpart (4), is
20 provided with an edge reinforcement (13) to compensate against expansion of an
edge region circumference.
3. A backflow preventer according to one of claims 1 or 2, characterized in that the
edge reinforcement (13) is embodied as an annular cross-sectional expansion or a
25 cross-sectional enlargement of the closing body (3).
4. A backflow preventer according to one of claims 1 through 3, characterized in
that the closing body counterpart (4) has a rounded end section (6) and is
preferably embodied in a drop shaped manner.

5. A backflow preventer according to one of claims 1 through 4, characterized in that the central closing body counterpart (4) is connected to a through flow plate (7), which has penetrating openings (9) which open into the passage channel (5).
- 5 6. A backflow preventer according to one of claims 1 through 5, characterized in that the through flow plate (7) in an area of the passage channel (5) is embodied as a sieve or perforated plate with preferably honeycomb-shaped penetrating openings (9).
- 10 7. A backflow preventer according to one of claims 1 through 6, characterized in that the through flow plate (7) and the closing body counterpart (4) are connected to one another in one piece.
- 15 8. A backflow preventer according to one of claims 1 through 7, characterized in that the closing body (3) is held at the exterior circumference of the through flow plate (7).
- 20 9. A backflow preventer according to one of claims 1 through 8, characterized in that the closing body (3) includes a closing body section held at the through flow plate (7) that contacts an interior circumference of the gas or liquid line (2) in a sealing manner.
- 25 10. A backflow preventer according to one of claims 1 through 9, characterized in that an upstream face edge region of the closing body (3), contacting the gas or liquid line (2) in a sealing manner, is embodied as an annular cross-sectional enlargement (10).
- 30 11. A backflow preventer according to one of claims 1 through 10, characterized in that the closing body (3) is held with the cross-sectional enlargement in a fastening groove (11) provided in an exterior circumference of the through flow plate (7).

12. A backflow preventer according to one of claims 1 through 11, characterized in
that the backflow preventer (1) is formed in two pieces and comprises the closing
body (3), on the one hand, and the closing body counterpart (4), on the other
5 hand, with the through flow plate (7) connected thereto in one piece.